

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1. (Previously Presented) An input device comprising:

a plurality of electrodes arranged in a circumferential direction at equal intervals and having the same area, wherein a respective capacitance associated with each of the plurality of electrodes can be generated;

an insulating sheet laminated on surfaces of the respective electrodes;

capacitance detecting means provided for each electrode so as to detect from the respective electrodes a variation in capacitance formed between the respective electrodes and a portion of the human body which faces the electrode in spaces between the respective electrodes when a portion of the human body is adjacent to or in contact with an external surface of the insulating sheet, wherein the capacitance detecting means detects a variation of a facing area between one of the electrodes and the portion of the human body, the capacitance detecting means comprising:

clock signal generating means for continuously generating a pulse signal composed of a predetermined frequency, and

signal delay means having a time constant CR defined by a product of the capacitance C formed between the respective electrodes and the portion of the human body and a resistor R connected between the clock signal generating means and the capacitance C ; and

a control unit that receives a detection signal from the capacitance detecting means to detect switching due to approach or contact of a portion of the human body to each electrode,

wherein the control unit detects operating information including an operating direction, an operating speed, and/or a contact time, by the combination of detection of switching, and

wherein the control unit monitors the operating information for all the plurality of electrodes.

2. (Previously Presented) The input device according to Claim 1,

wherein the capacitance detecting means comprises: clock signal generating means for generating a clock signal;

delay means for delaying the clock signal according to the capacitance detected from the electrode when the human body is adjacent to or in contact with the external surface of the insulating sheet;

smoothing means for generating a smoothed signal according to a delayed amount, based on the clock signal which does not pass through the delay means; and

A/D converting means for analog-to-digital converting the smoothed signal according to an amount of the variation of capacitance.

3. (Original) The input device according to Claim 2,

wherein the delay means, the smoothing means, and the A/D converting means are provided in each of the plurality of electrodes, respectively.

4. (Cancelled)
5. (Previously Presented) The input device according to Claim 1,
wherein the capacitance detecting means detects a time when the
electrode faces the portion of the human body.
6. (Original) The input device according to Claim 1,
wherein the capacitance detecting means detects switching information
on the plurality of electrodes simultaneously tapped.
7. (Original) The input device according to Claim 1,
wherein portions of the surface of the insulating sheet that are opposite
to the electrodes are concaved or convexed from the surface of the insulating sheet.
8. (Previously Presented) The input device according to Claim 1,
wherein an entire operation region in which the plurality of electrodes is
provided is concaved or convexed from regions other than the operation region.
9. (Original) The input device according to Claim 8,
wherein marks for indicating positions of the respective electrodes are
printed on the surface of the insulating sheet.
10. (Previously Presented) The input device according to Claim 1,
wherein a region in which the plurality of electrodes is formed is
provided with a rotating body rotating around a center of thereof.

11. (New) The input device according to Claim 1 further comprising:

a rotating shaft fixed to a bearing portion disposed at a center of an operation region; and

a rotary body having a disc shape rotatably supported on the rotating shaft.